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EXAMINER

KNABLE, GEOFFREY L

ART UNIT

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1747

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---------------------------------------|---|--|
| Office Action Summary | Application No. 10/581,915 | Applicant(s) LACAGNINA, CLAUDIO | |
| | Examiner GEOFFREY L. KNABLE | Art Unit 1747 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 42-54, 56-78 and 82-85 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 42-54, 56-78 and 82-85 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/6/2011</u> . | 6) <input type="checkbox"/> Other: ____. |

1. No claims are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, as the non-elected claims were cancelled, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 1/6/2011.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 68-74, 78, 82, 83 and 85 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 68 has been amended to define that the device for translating the coils includes a "pusher element that translates with respect to the forming support". With respect to the pusher element (corresponding to element "27" in the disclosure), however, the original disclosure only describes that it is movable around the deposition surface, a motion that is *not* consistent with the now claimed requirement that the pusher element "translates". This is therefore subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is new matter.

New claim 83 includes essentially this same requirement that the pusher element “translates” with respect to the forming support and therefore likewise is considered to lack description and thus introduce new matter.

4. Claim 85 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The scope of dependent claim 85 is indefinite to the extent that the motion *around* the deposition surface is considered to be consistent with the claim 68 requirement that the pusher element *translates*, it not being considered that a rotation movement is properly termed a translation.

5. Claims 42, 45-49, 52-54, 56-61, 63, 64, 68, 70, 71, 73 and 83 are rejected under 35 U.S.C. 102(b) as being anticipated by MacDonald (US 1,504,255).

MacDonald discloses a method for producing a semifinished product (bias fabric) of reinforcing elements in elastomer comprising preparing a continuous elongated element including reinforcing elements coated with elastomer, winding the elongated element on a forming support (34) with coils in contact with one another, translating the coils to a cutter (50/52) and cutting the coils to form a continuous semifinished product with elongated elements that would extend between edges thereof (as it is a bias fabric). As to translating the coils by moving at least one pusher element with respect to the forming support to push the coils along the axis, MacDonald teaches including pusher elements (37) that move with respect to the forming support (34 - e.g. note page 2, lines 65-70) to advance the helix coils. This therefore anticipates the requirements of process

claim 42. Further, the requirements of corresponding apparatus claim 68 are also anticipated, it being noted that the motion of the pusher elements (37) along the surface of the drum is a linear movement in the same plane and properly termed a translatory movement.

As to claim 45, the elongated element “comprises” a single reinforcing element (this not excluding additional elements). As to claim 46, the element would have comprised plural parallel reinforcing elements (e.g. note page 1, lines 35-39). As to claim 47, the elongated element is guided to the cylindrical deposition surface presented by the cylindrical forming support (34). As to claim 48, the elongated element extends from the vicinity of the axis outward and then back to the former - note esp. fig. 3. As to claim 49, the elongated element is rotated and guided around the forming support. As to claim 52, the translation is continuous and thus repeated after forming each coil. As to claim 53, the coils move axially and therefore have a force exerted in this direction, the force being exerted on all coils including the last coil. As to claim 54, at present, it does not seem that the reference to “concentrically” clearly defines the motion of the pusher element in a manner that distinguishes the motion of the concentrically oriented pusher elements (37) in MacDonald (the claim not at present clearly defining or requiring that the motion of the pusher element is “around” the deposition surface as for example in claim 75). As to claims 56-57, there would be at least some frictional resistance to movement of the coils, which would be reduced as the coils leave the forming support towards the cutter. As to claim 58, note pressure roller (39) directed against the support. As to claims 59-61,

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cutting occurs during/after translation. As to claim 63, the cut product is collected in a plane (e.g. fig. 1). As to claim 64, after cutting, the ends would have to move away from each other to achieve the planar orientation. As to claim 70, note reel 13. As to claim 71, note roller guide 19/21 which acts as a guide element through which the elongated element slides and the guide path includes an end stretch directed to the forming support. As to claim 73, note rotating ring (6). As to claim 83, as already noted, the motion of the pusher elements (37) along the surface of the drum is a linear movement in the same plane and properly termed a translatory movement.

6. Claims 43, 44, 69, 70 and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDonald (US 1,504,255) as applied above, and further in view of Takagi (US 2002/0153083).

As to claims 43 and 69, although MacDonald describes forming the elongated element using a calender, in this art, it is well known to be suitable and effective to form an elongated element to be wound to form a tire ply using an extruder - Takagi (note extruder 40 in fig. 2 used to form the reinforced strip) is exemplary. To alternatively use an extruder to form the elongated element would therefore have been obvious and lead to only the expected and predictable results. As to claim 44, directly supplying the elongated element from its formation would have been obvious in view of the teachings of Takagi (e.g. fig. 2), this providing the expected advantage of avoiding the need for intermediate storage. As to claim 70, providing a reel to supply the reinforcement to the extruder would have been seen as typical and obvious. As to claim 82, as

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already noted, MacDonald shows a device satisfying claim 68. Insofar as MacDonald is directed to forming tire plies, use of this in combination with other assembling/curing devices for forming a tire (Takagi is exemplary of assembling devices being used in forming a tire) would have been obvious.

7. Claims 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDonald (US 1,504,255) as applied above, and further in view of Gammeter (US 1,604,273 - newly cited).

To form the bias ply by simultaneously winding two elongated elements would have been an obvious alternative in view of Gammeter - not esp. winders 18 and 19.

8. Claims 54, 62, 75-78, 84 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacDonald (US 1,504,255) as applied above, and further in view of at least one of [Bringman (US 3,905,736 - newly cited) and Drosthholm (US 3,943,224 - newly cited)].

MacDonald illustrates a pusher device that includes belts (37) that move axially to axially advance the wound element rather than moving around the forming support. MacDonald does however seem to contemplate a broader scope of the advancing device being functional to cause "the cylinder of fabric to travel over the form as it is built up" (e.g. claim 28 of MacDonald).

Bringman (esp. the figs. 13-15 embodiment) and Drosthholm both teach that a suitable and effective manner to axially advance a material being continuously formed on a cylindrical former is to include a band that travels *around* the cylindrical former to push the formed material axially along and off the

former. In view of these teachings, it would have been an obvious alternative to axially advance the cylindrical fabric being formed in MacDonald using a band that travels around the cylindrical former. This band satisfies the claimed requirement for a pusher element that is movable *around* the forming support and further, its axial extent of motion is inclusive of an axially offset plane as claimed. This renders claims 54, 75, 84 and 85 obvious, the claims not distinguishing such an advancing/pushing element. As to claim 76, the band is carried by the former of the winding device. As to claim 77, the presser (39) of MacDonald is "operatively connected" with the pusher element as its operation is necessarily connected to the operation of the pusher, this claim not clearly requiring any other type of connection. As to claim 78, in MacDonald, the cylindrical formed element tapers toward the cutter (fig. 1), it being obvious to provide a taper at the drum end to avoid interference - note also the teachings of Bringman to taper the end of the former (101 in fig. 13) prior to cutting. This tapered area would also satisfy the claim 62 requirement for an auxiliary support before cutting.

9. Claims 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (US 6,039,826) taken in view of MacDonald (US 1,504,255).

Okada is exemplary of the conventional method of building a tire in which a carcass is wound around a drum, associated with beads and sidewalls, toroidally shaped and joined with a prepared belt and tread structure (e.g. col. 5, lines 11-19). Specifics of preparation of the carcass ply is not however provided. A preparation process consistent with the claimed requirements is however

taught by MacDonald for the same reasons already described above with respect to claim 42, it being obvious to follow such a process to form the carcass plies for use in a conventional tire building process as for example in Okada, especially when forming a bias carcass. A process as required by claim 65 would therefore have been obvious. As to claims 66 and 67, winding the tread and sidewall in coils using a narrow ribbon is well known and conventional and taught by Okada.

10. Claims 68, 70 (for Solbeck rejection only), 71, 72, 73 and (for Solbeck rejection only) 74 are rejected under 35 U.S.C. 103(a) as obvious over [Solbeck (US 3,663,331) taken in view of Andreevskaya et al. (US 3,467,507) and optionally Beelien (US 3,558,411 - newly cited)] or [Andreevskaya et al. (US 3,467,507) optionally taken in view of Beelien (US 3,558,411 - newly cited)].

Solbeck and Andreevskaya et al. are applied for substantially the same reasons as set forth in the last office action. As to the newly claimed reference to the pusher element that translates with respect to the support, Andreevskaya et al. teaches using conveyors (6) whose outer reaches translate axially to push the coils axially. These conveyors further translate relative to at least portions of the forming support. Further, to the extent that the claims are read to require translation relative to a deposition surface, such would have also been an obvious alternative in view of Beelien which also is directed to axially advancing a cylindrical wound material to a cutter using axially translating conveyors and suggests it to be obvious alternatives to either provide the conveyors to form the whole deposition surface or to include mandrel parts between the conveyors - note esp. col. 4, lines 41-46 and fig. 6 of Beelien. With mandrel parts between

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conveyors, the conveyor would then be translating relative to the deposition surface of the forming support. With respect to the Solbeck rejection, it would have been obvious to include axial moving pushers in the form of axially moving/translating conveyors in view of the teachings of Andreevskaya et al. alone or further in view of Beelien as applied above.

11. Applicant's arguments filed 7/29/2011 with respect to the claims have been considered and are persuasive with respect to the previous grounds of rejection but are otherwise moot in view of the new ground(s) of rejection necessitated by the amendments to the claims. The previous indication of allowable subject matter in claims 75-77 is also withdrawn in view of the rejection using the newly cited Bringman and Drosthholm patents, the claims not clearly distinguishing an advancing system that moves around the former as taught by these references. This action has not been made final as this latter new rejection was not necessitated by the amendments to the claims.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to GEOFFREY L. KNABLE whose telephone number is (571)272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GEOFFREY L KNABLE/
Primary Examiner, Art Unit 1747

G. Knable
November 9, 2011